

**Avery Dennison® T-1500**  
**Engineer Grade Reflective Sheeting**  
**Permanent Traffic Signage**  
**Pressure Sensitive Adhesive for Aluminum**

Data Bulletin # T-1500

04/2004

**Description:**

Avery Dennison® T-1500 Engineer Grade Reflective sheeting is a high quality, durable, enclosed lens retroreflective material. This reflective sheeting offers exceptional value for permanent traffic signage applications. Meets applicable requirements for engineer grade sheeting applications for Type I retroreflective sheeting as set forth in ASTM D 4956.

**Construction:**

<b>Face Film:</b>	High gloss
<b>Adhesive</b>	Permanent pressure sensitive (Class 1)
<b>Liner:</b>	White Polyethylene Coated Paper StaFlat®

**Warranted Photometric Performance:**

Type I values per ASTM D 4956. Minimum Coefficient of Retroreflection ( $R_A$ ) ( $\text{cd} / \text{lx} / \text{m}^2$ )

Observation Angle	Entrance Angle	White	Yellow	Orange	Green	Red	Blue	Brown
0.2°	-4°	70	50	25	9	14	4	1.0
	30°	30	22	7	3.5	6	1.7	0.3
0.5°	-4°	30	25	13	4.5	7.5	2.0	0.3
	30	15	13	4	2.2	3.0	0.8	0.2

**Colors & Specification Limits (Daytime)<sup>A</sup>:**

Color	1		2		3		4		Luminance (Y%)	
	x	y	x	y	x	y	x	y	Min	Max
White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329	27	--
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	15	45
Orange	0.558	0.352	0.636	0.364	0.570	0.429	0.506	0.404	14	30
Blue <sup>B</sup>	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216	1.0	10
Green <sup>B</sup>	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771	3.0	9.0
Red	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346	2.5	12
Brown	0.430	0.340	0.610	0.390	0.550	0.450	0.430	0.390	4.0	9.0

<sup>A</sup>The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65.

<sup>B</sup>The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors

**Other Specifications:**

Consult your Avery Dennison Representative for information concerning additional world-wide specifications.

## Avery Dennison® T-1500 continued...

### Physical Properties:

<b>Outdoor Durability</b>	Avery Dennison T-1500 sheeting is warranted for 7 years (3 years for orange) when properly processed and applied.
<b>Minimum Surface &amp; Ambient Air Application Temperature</b>	40°F (4°C) when applied with a squeeze roll applicator
<b>Application Surface</b>	Flat surfaces only. Not recommended for unpainted stainless steel. Always pretest your specific substrate prior to application. Note: Wet method of application is not recommended for Avery Dennison T-1500 reflective sheeting.
<b>Service Temperature Range</b>	-40°F to 180°F (-40°C to 82°C)
<b>Typical Film Caliper (w/adhesive)</b>	4.5 to 5.5 mils (114 µm to 140 µm)
<b>Shelf Life</b>	One year when stored at the following temperature and conditions 68° - 77°F (20° - 25°C) and 50% ± 5%± R.H.
<b>Other Tests:</b>	T-1500 meets all other requirements set forth in ASTM D 4956 including Shrinkage, Flexibility, Liner removal, Adhesion, Impact resistance, Specular gloss and Outdoor weathering.

### Application & Conversion Information:

The following Avery Dennison literature will provide complete information to the user for proper application, storage, and other requirements and is available from your Avery Dennison representative, from the Avery Dennison web-site [www.reflectives.averydennison.com](http://www.reflectives.averydennison.com) or on request:

### Approved screen printing inks:

<b>Ink Supplier</b>	<b>Ink Series</b>	<b>Ink System</b>	<b>Instructional Bulletins</b>
Avery Dennison	10TS™	2 Part Solvent	#8.32
Avery Dennison	UVTS™ Sericol	UV Curing	#8.33
Avery Dennison	7TS™	1 Part Solvent	#8.37
Maribu	PU	Solvent	
Visprox	2000	Solvent	

## Avery Dennison® T-1500 continued...

<b>Instructional Bulletins:</b>	
Storage, Handling & Cleaning	#8.00
Substrate Requirements	#8.01
Contractor's Guide for Storage	#8.04
Application of PS Adhesive	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing	#8.34
Proper Storage Booklet	#8.50
Ink Recommendation Guide	#8.55

<b>Color Availability:</b>	
T-1500	White
T-1501	Yellow
T-1504	Orange
T-1505	Blue
T-1508	Red
T-1509	Brown

### Warranty:

**WARRANTY:** All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either one year (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

Avery Dennison's liability for defective products shall not exceed the purchase price paid therefore by Purchaser and in no event shall Avery Dennison be responsible for any incidental or consequential damages whether foreseeable or not, caused by defects in such product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence.

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Avery Dennison , 6565 W. Howard, Niles, IL 60714, USA, 1-800-327-5917, [www.reflectives.averydennison.com](http://www.reflectives.averydennison.com)

T-1500 is protected by one or more of the following US patents: 5,514,441; 6,054,208; 6,350,036; 6,350,036

